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## ABSTRACT

As part of the Study of Dissemination Efforts Supporting School Improvement, researchers looked at how the activities of, perceptions of, and opinions about the building administrator affect the outcome of efforts to implement new practices. This paper describes a sample of building administrators working in the 146 school districts that participated in the study. It characterizes the forms of assistance provided by administrators to staff members implementing new practices, identifies the long-term strategies established for maintaining new practices, and summarizes the general roles played by school administrators in encouraging school improvement. Individually-focused and school-focused models of school improvement, developed during the study, are drawn on to clarify the effect of building administrators on improvement efforts at both the teacher and building levels. (Author/FGD)

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## BUILDING ADMINISTRATORS AND THEIR ROLE IN THE IMPROVEMENT OF PRACTICE

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### A Study of Dissemination Efforts Supporting School Improvement

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# Building Administrators and Their Role in the Improvement of Practice

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In recent years a number of studies have discussed the role of school building administrators and their contribution to the success of school improvement efforts (Berman & McLaughlin, 1978; Emrick & Peterson, 1978; Loucks & Hall, 1979). As part of the Study of Dissemination Efforts Supporting School Improvement, we examined how the activities, perceptions of, and perceptions about the building administrator -- usually the principal -- impacted the outcome of efforts to implement new practices. In this paper, we describe the sample of building administrators connected to the 146 school districts that participated in our Study. We then characterize the assistance they provided their staff in terms of the implementation of the particular practice we examined, and their long term strategy for maintaining that practice in the school. In addition, we describe the general role these administrators played in encouraging school improvement. Finally, using individually-focused and school-focused models of school improvement, we look at the effects of building administrators on a variety of outcomes at both the teacher and building levels.<sup>1</sup>

In the individually-focused models we look at the effects of a range of variables, including the following:

- Principal Help Received -- the amount of assistance teachers reported they received from their principal in implementing the new practice, and
- Principal Help Given -- the amount of help in implementing the new practice the principal reported he or she gave to teachers,

on the following outcomes:

- Change in classroom teaching,
- Teachers' mastery of the new practice,

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<sup>1</sup>See Crandall, Bauchner, Loucks, and Schmidt (1982) for a more detailed description of the models discussed in this paper. Described there also is the differentiation of the sample into two groups: teachers for whom implementation of the practice required major change, and those for whom it required only minor change.

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- The degree to which the implemented practice was faithful to the practice as developed, and
- The total number of benefits teachers attributed to using the new practice.

Figure 1 highlights the relationship of these building administrator variables to the other variables in the individually-focused model. The figure looks at change in classroom teaching and perceived benefits as the outcomes of implementation. Figure 2 highlights the relationship of these building administrator variables in the individually-focused models which explain implementation outcomes other than change. In this paper, the data discussed are gathered from the teachers in our sample who had to undergo major change in order to implement the new practice.

In the school-focused model we look at the effects of the following variables:

- Principal Management Style -- teachers' perception of how the principal responds to their concerns and communicates with them,
- Administrator Power Over the Implementation -- whether administrators were decision-makers in the adoption process and/or had a role in controlling the implementation,
- Principal Leadership -- the degree to which the principal actively focuses the direction of activity in the school building,
- Principal Commitment to the Practice -- the degree to which the principal feels personally involved with and critical to the implementation effort, and
- Principal Help Received -- this is the same variable as used in the individually-focused model,

on the following outcomes:

- Institutionalization of the Practice -- the degree to which the practice has become a regular aspect of school life, which is not dependent upon present personnel,
- Organizational Change -- the perceived benefits of the practice which impact more than individual teachers or students, and
- Plans for Continuation of Practice -- the likelihood that use of the practice will be eliminated, reduced, maintained, or expanded.

Figure 3 highlights the relationship of these building administrator variables to others in the school-focused model.

Figure 1: The Impact of the Building Administrator on Classroom Change and Perceived Benefits

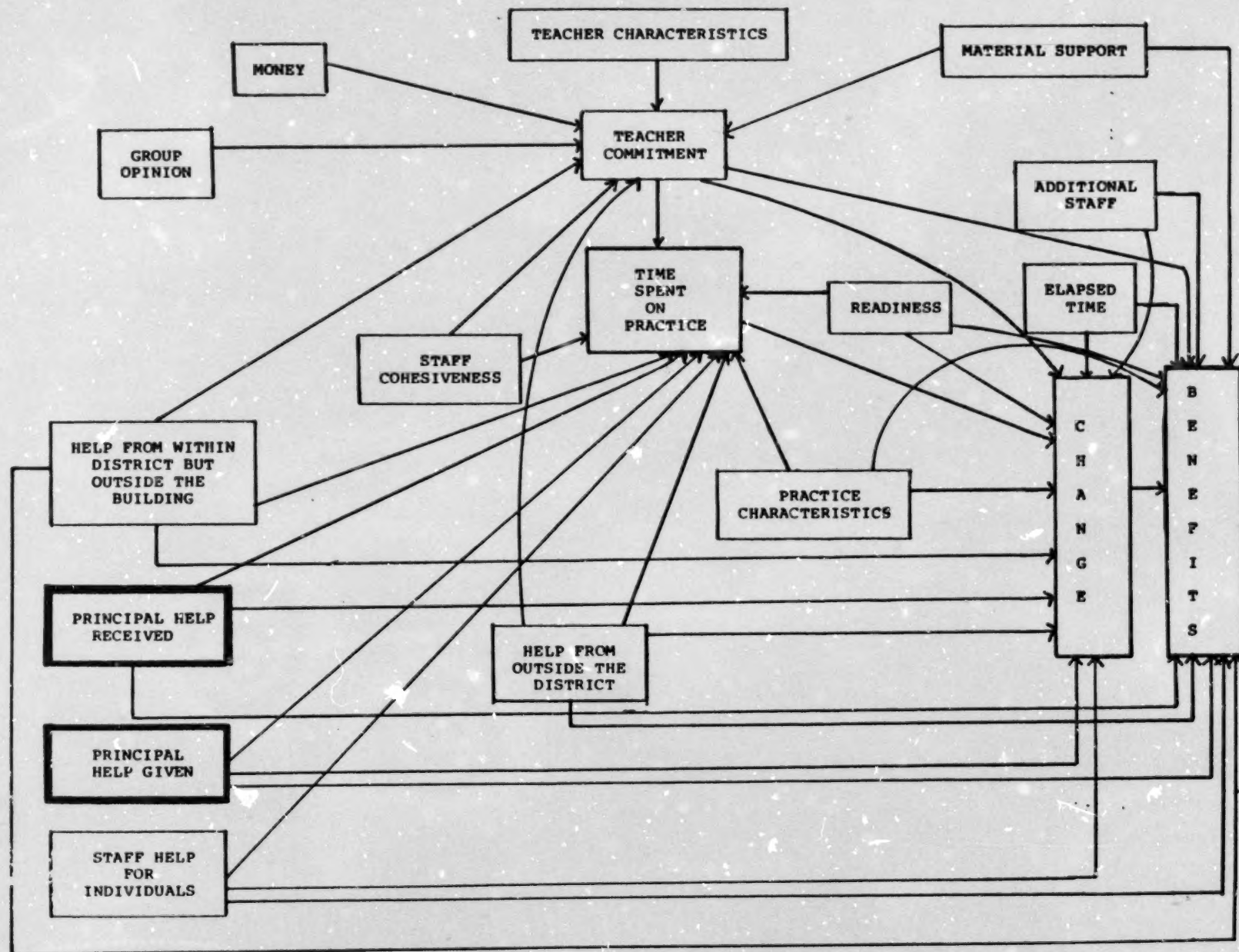


Figure 2: The Impact of the Building Administrator on Implementation Outcomes

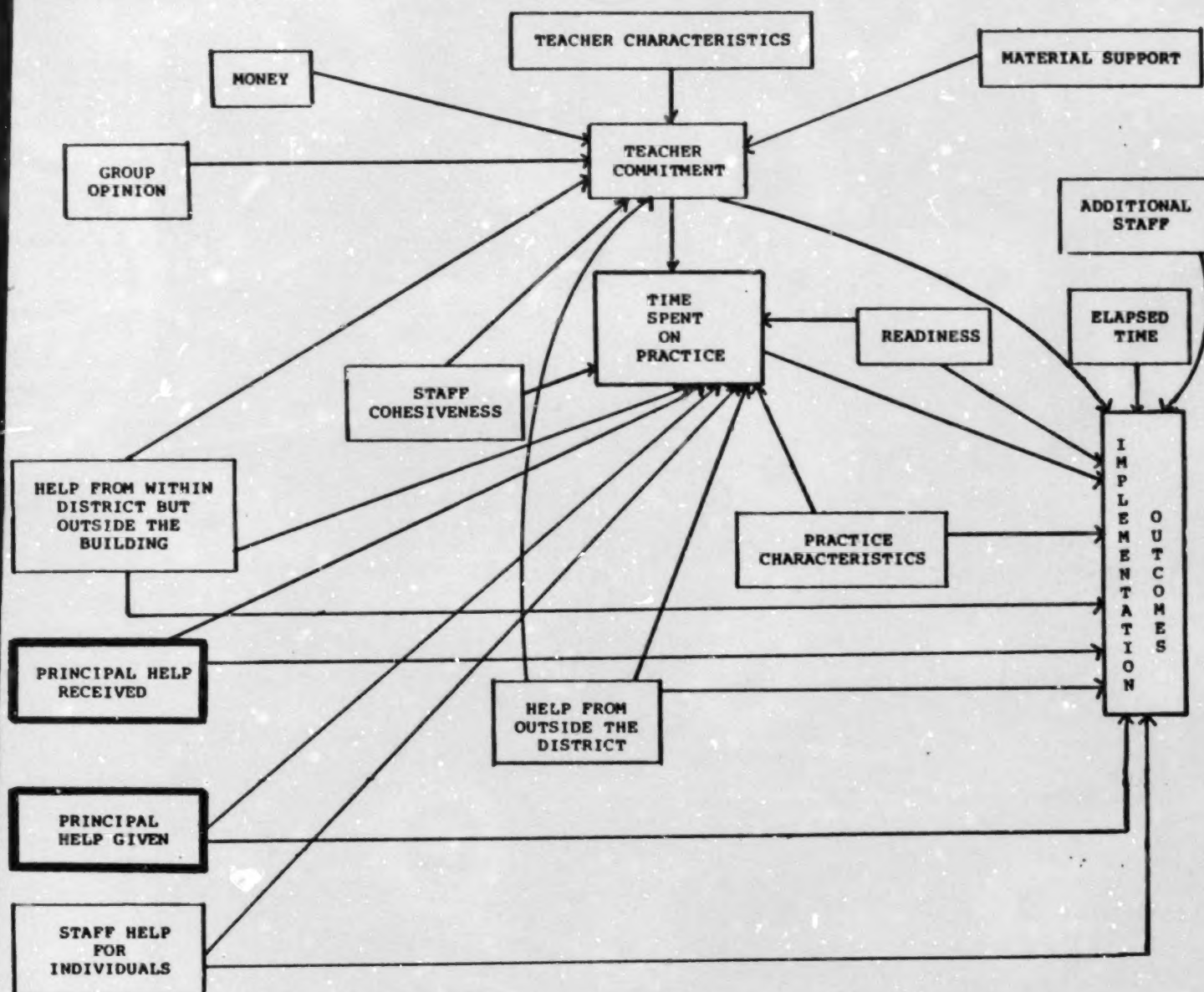
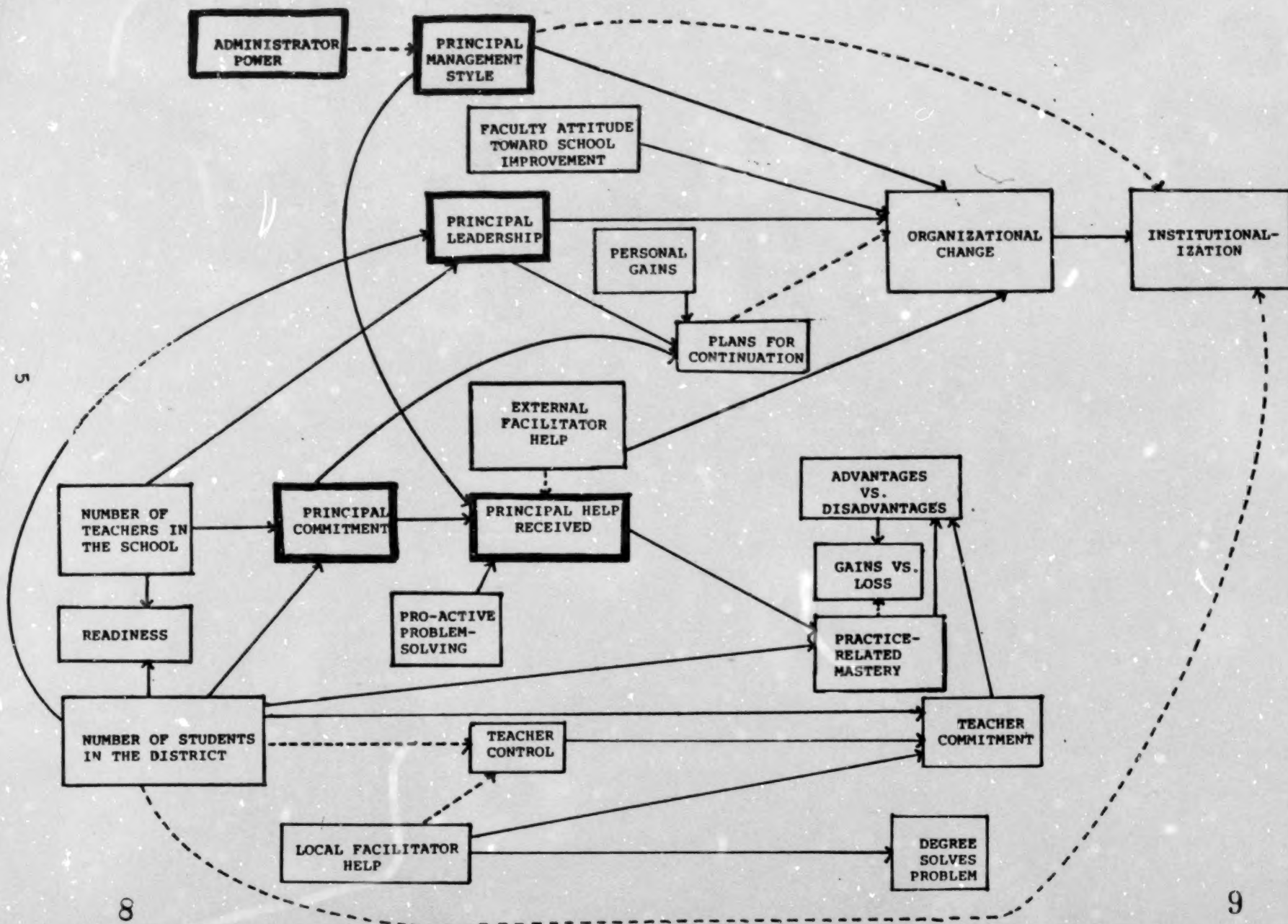


Figure 3: The Role of the Building Administrator as Represented in the School-Focused Model



Who They Are and What They Are Like: Our  
Sample of Building Administrators

In every school building participating in the Study, we made an effort to gather data from the building administrator most responsible for insuring the implementation of the practice. In the majority of schools, this was the principal, although occasionally an assistant principal took this role. For ease of presentation, we refer to these building administrators as principals. For all but two sites, we administered an interview and questionnaire to the principal.

We designed the administrator interview to ascertain quickly whether the respondent was aware of and/or involved with the practice. Those principals who were not aware of the practice were considered "non-implementing"; these principals were given versions of the interview and questionnaire focused on school improvement in general, not on the implementation of the new practice. Table 1 illustrates the distribution of implementing and non-implementing principals by the four programs/strategies we investigated.

The existence of non-implementing administrators caused us some problems in testing our models, particularly the individually-focused model. The variables in the model focus largely upon the principal's role in implementing the practice, a role which the non-implementing principal did not have, by definition. This forced us to set all principal assistance

Table 1: Distribution of Implementing and  
Non-Implementing Principals  
By Program

|                                                                                                                       | All   | NDN   |       | DEH   | Title<br>IV-C | State |
|-----------------------------------------------------------------------------------------------------------------------|-------|-------|-------|-------|---------------|-------|
|                                                                                                                       |       | Title | Other |       |               |       |
| Total Number of Schools                                                                                               | 146   | 26    | 48    | 17    | 24            | 31    |
| Number of Implementing<br>Building Administrators                                                                     | 110   | 20    | 37    | 6     | 23            | 24    |
| Number of Schools With<br>Implementing Principals as<br>a Proportion of the Total<br>Number of Schools for<br>Program | 75.3% | 76.9% | 77.1% | 35.3% | 95.8%         | 77.4% |
| Number of Non-Implementing<br>Principals                                                                              | 34    | 6     | 11    | 9     | 1             | 7     |
| Number of Non-Implementing<br>Principals as a Proportion<br>of the Total Number of<br>Schools for Program             | 23.3% | 23.1% | 22.9% | 52.9% | 4.2%          | 22.6% |
| Total Principals                                                                                                      | 144   | 26    | 48    | 15    | 24            | 31    |

variables for non-implementing principals to zero, since they delivered no implementation assistance. That solved one problem, but another cropped up. We could not include schools in our sample for testing the model which had large amounts of missing data; it turned out that in most cases the schools with non-implementing principals were those with large amounts of missing data. Therefore, schools with non-implementing principals are virtually non-existent in the individually-focused model and are severely under-represented in the school-focused model. This would be of concern if non-implementing principals made up a large portion of our sample; however, on the average, non-implementing principals constitute only about 20% of the principals in the adopting schools.<sup>2</sup>

In general, the building administrators in all the schools in our sample were experienced principals. Non-implementing principals had been in their present position for an average of 6.2 years. Implementing principals had been in school administration an average of 10.2 years.

Table 2 displays the role played by implementing and non-implementing principals in encouraging school improvement. Since this was in response to an open-ended interview question, the data reflect number and percentages of respondents who mentioned each activity. "Engaging in internal communication" received the highest response rate among non-implementing and all principals. Implementing principals also agreed this was a priority activity, in addition to advocating and encouraging new approaches; both activities were checked by 46% of this group. Implementing principals are slightly more likely than non-implementing principals to help teachers implement a new practice, arrange and provide for staff, or provide support and incentives for staff. Non-implementing principals are more likely to engage in external communication and set or help others set goals and priorities.

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<sup>2</sup>The BEH sample does have 52% non-implementing principals. However, there was so much missing data across the 17 BEH schools, that none of them could be included in the testing of any models.

**Table 2: Specific Activities of Implementing  
and Non-Implementing Principals in Encouraging  
School Improvement**

| Type of Activity                                  | Type of Principal          |                                | All<br>Principals |
|---------------------------------------------------|----------------------------|--------------------------------|-------------------|
|                                                   | Implementing<br>Principals | Non-Implementing<br>Principals |                   |
| Advocating and encouraging new approaches         | 48<br>(46%)                | 6<br>(18%)                     | 54<br>(39%)       |
| Identifying problems and making needs assessments | 31<br>(30%)                | 11<br>(33%)                    | 42<br>(30%)       |
| Engaging in internal communication                | 48<br>(46%)                | 24<br>(73%)                    | 72<br>(52%)       |
| Setting goals and priorities                      | 20<br>(19%)                | 8<br>(24%)                     | 28<br>(20%)       |
| Helping others to set goals and priorities        | 20<br>(19%)                | 9<br>(27%)                     | 29<br>(21%)       |
| Helping teachers to implement new practices       | 35<br>(33%)                | 9<br>(27%)                     | 44<br>(39%)       |
| Providing support and incentives for staff        | 31<br>(30%)                | 7<br>(21%)                     | 38<br>(28%)       |
| Engaging in external communication                | 16<br>(15%)                | 8<br>(24%)                     | 24<br>(17%)       |
| Arranging and providing for staff                 | 17<br>(16%)                | 2<br>(6%)                      | 19<br>(14%)       |
| Assessing staff capability                        | 10<br>(10%)                | 4<br>(12%)                     | 14<br>(10%)       |
| Encouraging others to communicate                 | 18<br>(17%)                | 6<br>(18%)                     | 24<br>(17%)       |
| Other                                             | 23<br>(22%)                | 16<br>(48%)                    | 39<br>(29%)       |
| Number of Respondents                             | 105                        | 33                             | 138               |

Tables 3 and 4 display the kinds of assistance principals reported they provided that was related to the specific practice, and their long term strategies for continued assistance.

Table 3: Forms of Assistance Provided as  
Reported by Implementing Principals  
(N = 108)

| Forms of Assistance                      | Percent of Respondents<br>Who Mentioned Form of<br>Assistance |
|------------------------------------------|---------------------------------------------------------------|
| Communicate with staff                   | 54.7%                                                         |
| Plan, schedule, organize                 | 46.5%                                                         |
| Provide resources                        | 41.7%                                                         |
| Leverage staff                           | 38.0%                                                         |
| Provide support                          | 38.0%                                                         |
| Attend training sessions and meetings    | 30.6%                                                         |
| Observe the program in classroom         | 29.6%                                                         |
| Handle paperwork                         | 24.1%                                                         |
| Arrange training                         | 24.0%                                                         |
| Communicate with external facilitator    | 23.1%                                                         |
| Audit program                            | 19.4%                                                         |
| Other                                    | 14.8%                                                         |
| Make recommendations to the school board | 7.4%                                                          |
| Select staff                             | 0                                                             |

Table 3 shows that the most frequently mentioned categories of assistance involved the principal with the staff, working with the practice. Percentages start to drop as we approach more administrative types of activities (i.e., auditing the program, handling paperwork) and external communication (i.e., making recommendations to the school board, communicating with external facilitators).

Table 4: Long-Term Strategies for Assistance as Reported by Implementing Principals (N = 108)

| Forms of Assistance                    | Percentage of Respondents Who Mentioned Form of Assistance |
|----------------------------------------|------------------------------------------------------------|
| Expand the program                     | 29.7%                                                      |
| Protect and maintain the program       | 25.9%                                                      |
| Provide review and on-going assessment | 22.2%                                                      |
| Assist, train and direct the staff     | 13.9%                                                      |
| Encourage new approaches               | 13.0%                                                      |
| Encourage internal communication       | 9.3%                                                       |
| Encourage external communication       | 8.3%                                                       |
| Provide support                        | 6.5%                                                       |
| Be a resource person                   | 5.6%                                                       |
| Other                                  | 5.6%                                                       |
| Encourage problem-solving by others    | 3.7%                                                       |
| Keep hands off (benign neglect)        | 2.8%                                                       |
| Delegate responsibility                | 1.9%                                                       |

Table 4 illustrates that principals' long term strategies are abstract rather than concrete in nature. The highest percentages occur in expanding and/or protecting the practice; these categories are relatively vague in their portrayal of activity. The next two largest categories, "provide review and ongoing assessment" and "assist, train and direct staff," are much more concrete. Table 4 lacks any of the administrative categories included in Table 3. In addition, with the exception of encouraging external communication, principals asked about their long term strategies did not include any which deal with groups such as school boards.

Further comparison of Tables 3 and 4 yields some other interesting differences between present-oriented assistance and long term strategies. Even though the same number of principals responded to the questions which generated Tables 3 and 4 (N = 108), there is much less consensus about long term strategies than present assistance. No single category under long term strategies was chosen by more than 30% of the principals, whereas over half the principals note "communication with staff" when reporting assistance they provide on an ongoing basis. The low percentages and high level of abstraction in the categories of Table 4 suggest that principals are unsure about the content of long-term efforts for maintaining new practices.

Table 5 compares the principal reports of provided assistance and long term strategies from Tables 3 and 4 to the teachers' reports of the assistance provided to them by the principals. Principals are more likely to mention specific forms of assistance that they provide than are the teachers. The teachers lump most activities under "provide support," and under-represent "planning, scheduling, and organizing," which the principals perceive as a major activity.

Table 5: A Comparison of Forms of Assistance  
Provided by Principals as Reported by  
Teachers and Principals

| Forms of Assistance                         | Respondent          |                     |                    |
|---------------------------------------------|---------------------|---------------------|--------------------|
|                                             | Teacher             | Principal           |                    |
|                                             | Provided Assistance | Provided Assistance | Long-Term Strategy |
| Provide support                             | 47.1%               | 38.0%               | 6.5%               |
| Provide resources                           | 25.8%               | 41.7%               |                    |
| Leverage staff                              | 14.0%               | 38.0%               |                    |
| Plan, schedule, organize                    | 11.1%               | 46.3%               |                    |
| Identify and solve problems and give advice | 10.8%               |                     |                    |
| Provide and arrange training                | 10.2%               | 24.0%               |                    |
| Keep hands off (benign neglect)             | 9.6%                |                     | 2.8%               |
| Maintain internal communication             | 9.6%                |                     | 9.3%               |
| Observe program in classroom                | 6.4%                | 29.6%               |                    |
| Attend training meetings                    | 5.4%                | 30.6%               |                    |
| Provide staff                               | 3.8%                |                     |                    |
| Other                                       | 1.3%                |                     |                    |
| Number of Respondents                       | 314                 | 108                 | 108                |

## The Impact of the Principal on the Outcomes of Implementation

As mentioned earlier, we tested the impact of principal assistance, leadership, power, commitment, and management style on a variety of outcomes of implementation. Figures 4 through 8 illustrate the relationship between principal assistance as reported by the principal (Principal Help Given) and principal assistance as reported by teachers (Principal Help Received) on Change in Classroom Teaching, Perceived Benefits (Figure 4), Fidelity (Figure 5), and Practice-Specific Mastery (Figure 6).<sup>3</sup>

For illustrative purposes, Figures 4, 5 and 6 all display Time Spent on Practice in a single box (as did Figures 1 and 2). However, this concept includes five distinct variables:

- Time spent on classroom use of the practice,
- Time spent on materials for the practice,
- Time spent on training for use of the practice,
- Time spent evaluating the practice, and
- Time spent communicating about the practice.

Figure 7 displays the relationship of our two principal assistance variables to these five variables. The relationships displayed in Figure 7 are all part of the models in Figures 4 through 6. What is important to note is that the assistance of principals, regardless of whose report you use, does not significantly affect the amount of time teachers spend on any aspects of practice ( $p > .10$ ).

Principal assistance does significantly affect other outcomes. As noted in Figure 4, Principal Help Received significantly contributes to Perceived Benefits of the implementation. This is indicated by a significant positive causal path from Principal Help Received to Perceived Benefits ( $\beta = .10$ , Standard Error (SE) = .05). It seems that the things teachers perceive principals do to help with implementation significantly affect the number of benefits teachers attribute to use of the practice. However, the things principals perceive that they do to help implement the practice (Principal Help Given) do not significantly affect outcomes ( $p > .10$ ). The question arises "Why does the principal's report of help have less significant effect on benefits than the teachers' report?"

Two plausible interpretations come to mind. First, it is most likely that contact with the principal, rather than the specific help he or she provides, affects Perceived Benefits of

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<sup>3</sup>See pages 1 and 2 for definitions of variables (underlined terms).

Figure 4: The Impact of the Building Administrator on Classroom Change and Perceived Benefits

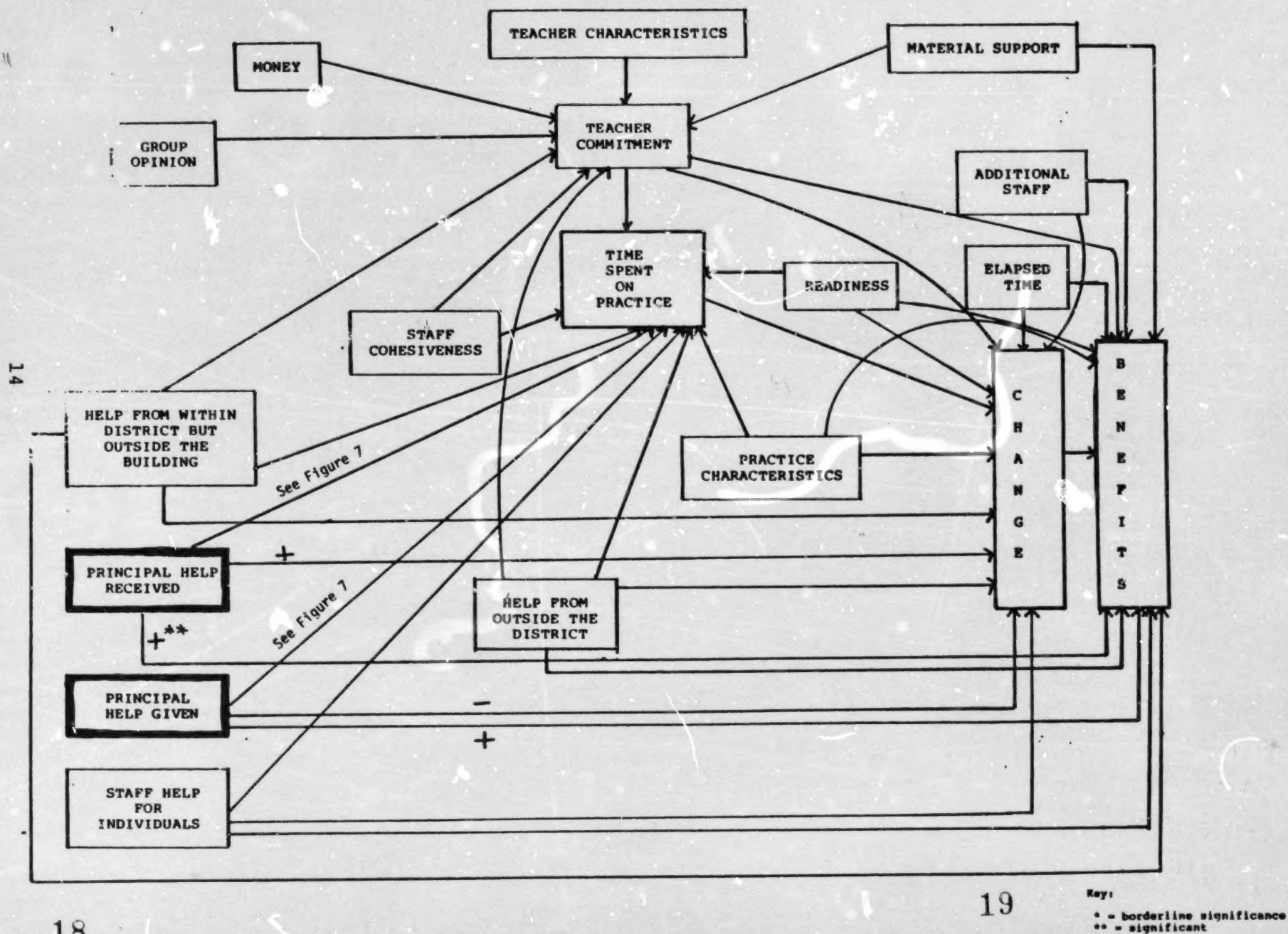


Figure 5: The Impact of the Building Administrator on Fidelity

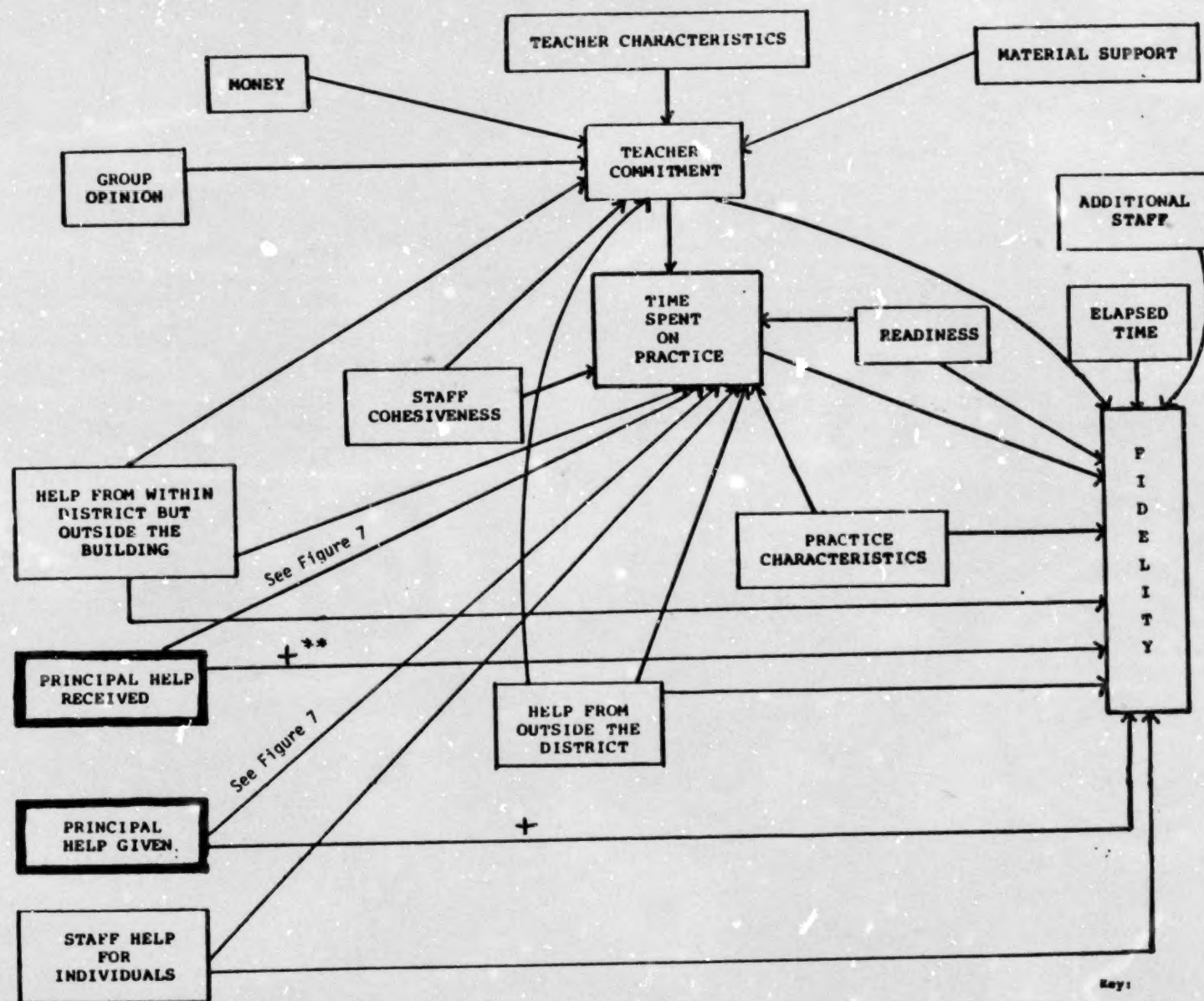


Figure 6: The Impact of the Building Administrator on Practice-Specific Mastery

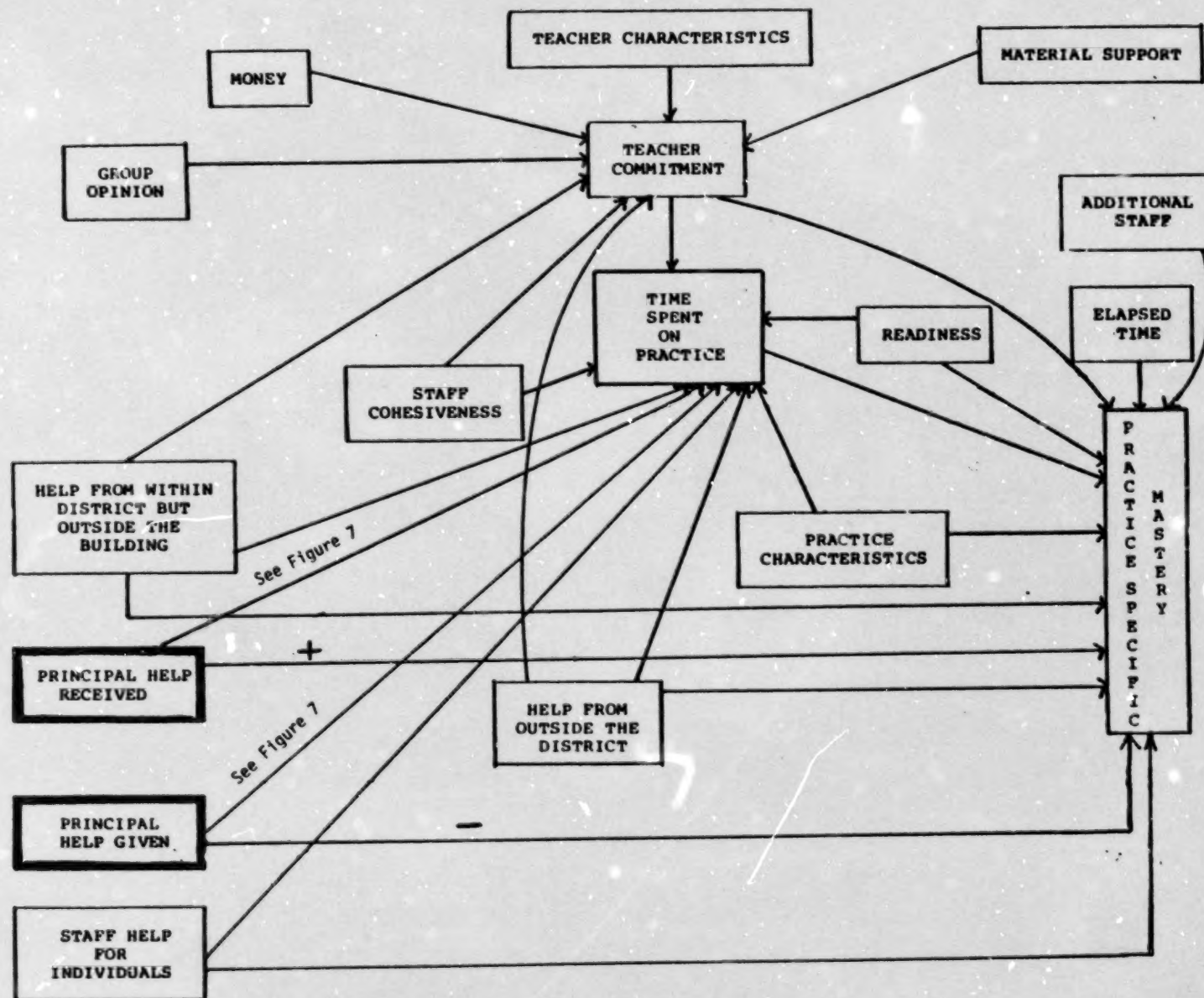
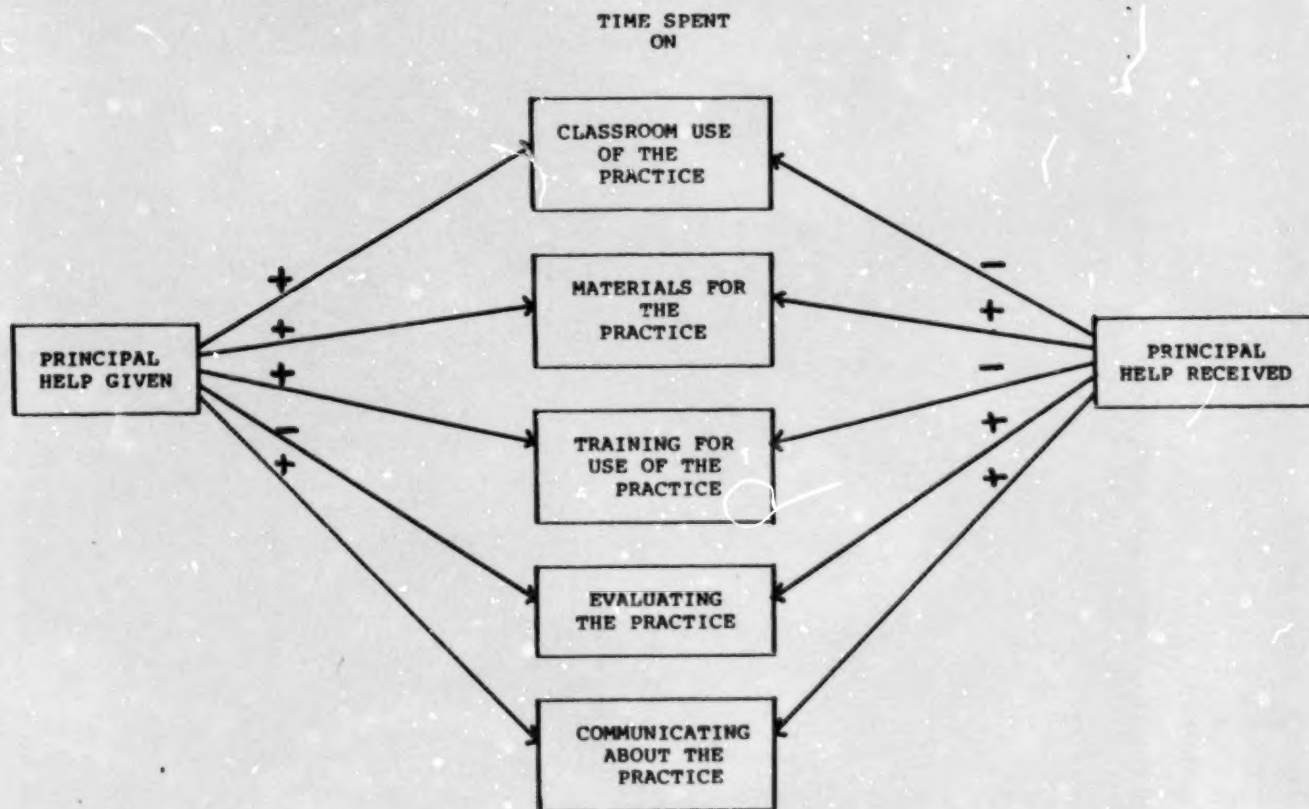
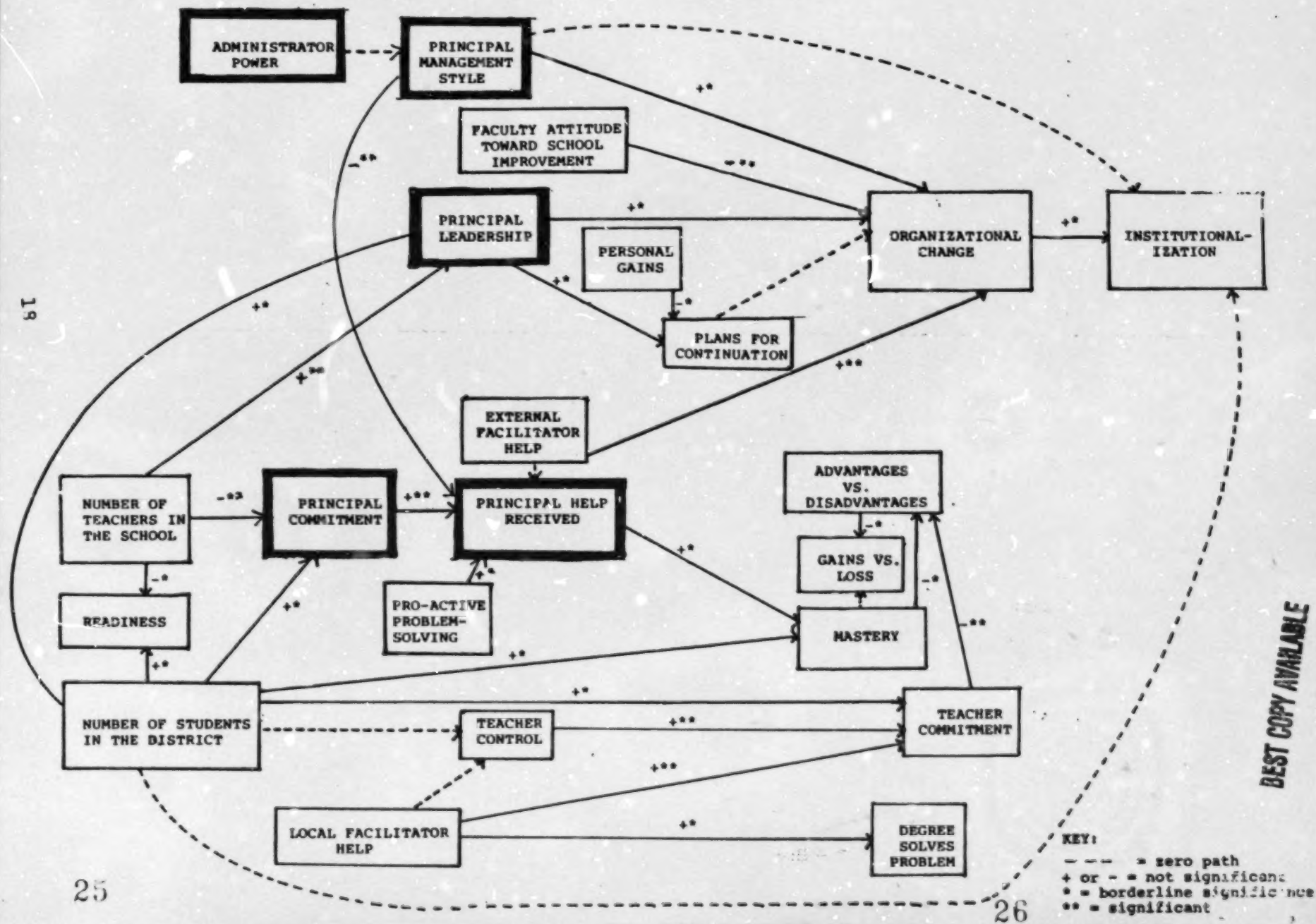


Figure 7: Relationships Among Principal Assistance and Time Spent on Practice Variables



\*\* = significant  
 \* = borderline significant

Figure 8: The Role of the Building Administrator as Represented in the School-Focused Model



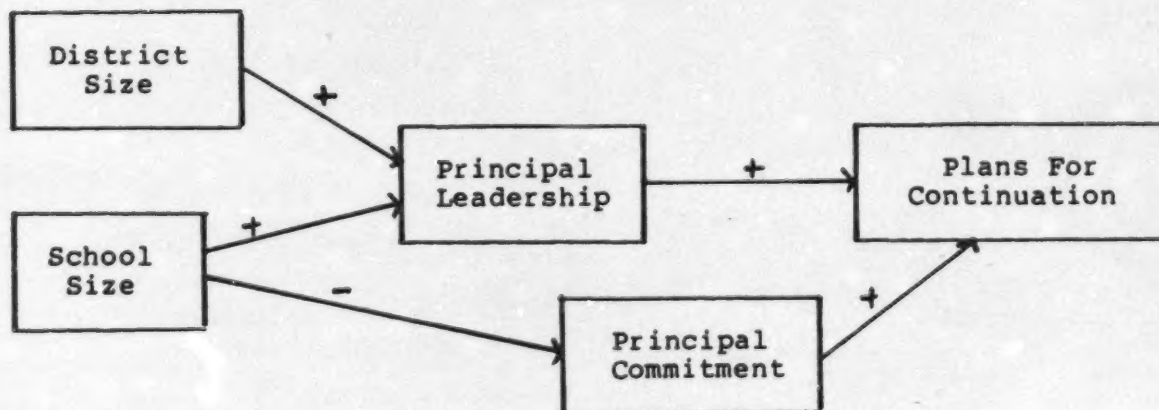
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implementation; in fact, this contact itself may be perceived to be a benefit. In that case, the specific detailed activities principals report would not be as significant as the general support most frequently reported by teachers (see Table 5). Another interpretation is that not all the activities the principal engages in to assist teachers are known to the teachers, or seen as helpful by them. Given the questions we asked, the teachers would report only the activities of which they are aware or find helpful. It is more likely, therefore, that the teachers' reports of assistance activities would affect their perceptions of the benefits of the practice.

Figure 5 displays a significant relationship between Fidelity and Principal Help to Individuals. Figure 6 shows no significant relationship between the principal assistance variables and Practice-Specific Mastery. Testing of the model displayed, however, did show that Practice-Specific Mastery was largely a product of time spent by the user on materials and on communicating about the practice.

Figure 8 displays the impact of the principal variables on school-focused outcomes. In order to clarify a rather complex set of relationships, let us examine the causal factors impacting each school-focused outcome, beginning with Plans for Continuation (see Figure 9). Both Principal Leadership and Principal Commitment to the practice affect Plans For Continuation of the practice with borderline significance ( $.05 < p < .10$ ). Neither of these variables are reports of principal actions or behaviors. Rather they describe the principal's orientation toward the practice (Principal Commitment) and his/her orientation toward how problems are solved in the building (Principal Leadership). In

Figure 9: The Influence of the Principal on Perceived Beneficial Changes in the School Resulting from Implementation of the Practice



the former case, it is the principal's report of his/her disposition toward the practice. In the latter case, it is the building faculty's judgement that the principal is proactive and guides decision making and problem solving. Likewise, Plans for Continuation is a measure of the principal's present orientation toward the future of the practice (i.e., whether it will be maintained, expanded, reduced, or eliminated.)

A final observation is that both these principal variables are affected positively and with borderline significance ( $.05 < p < .10$ ) by the number of students in the district. As the size of the district (i.e., number of students in the district) increases, so too does the amount of Principal Leadership and Principal Commitment to the practice and subsequently Plans for Continuation of the practice. Further, both Principal Commitment and Principal Leadership are affected significantly by the size of the school (i.e., number of teachers in the school). However, the model indicates that as schools get larger Principal Leadership increases ( $\beta = +.0077$ ,  $SE = .0035$ ), while Principal Commitment to the Practice decreases ( $\beta = -.0109$ ,  $SE = .0045$ ). Since all variables were simultaneously controlled for, the model indicates that, regardless of the size of the district, as the school gets bigger, Principal Commitment goes down.

Thus it seems that the size of the school building is more influential than the size of the district in affecting the principal's attitudes. It does seem sensible that as a school gets larger, the principal's awareness of any particular practice, let alone commitment to it, would decrease. Instead of focusing on particular practices, the principal of a larger school is more likely to concentrate his/her energies on maintaining the general direction of the school. More concisely, the model indicates that the principal is critical to Plans for Continuation; as the school gets bigger this influence will be asserted through more general leadership rather than commitment to a particular practice.

As we examine Organizational Change, we find a second influential variable, Principal Management Style, coming into play. Both variables have a positive impact ( $.05 < p < .10$ ) on the amount of organizational change attributed to the practice. A high score on Principal Management Style indicates a principal who is open and responsive to teachers, and who gives feedback. This type of principal might allow staff to participate in implementation-related decisions. Note that administrator power over the implementation is unrelated to Principal Leadership and that Principal Management Style is not a function of any other variable in the model. In interpreting these relationships, we must also remember that as both School and District Size increase, so does Principal Leadership.

We found no direct paths from any principal variables to Institutionalization. Organizational Change does have a positive effect, however, on Institutionalization ( $.05 < p < .10$ ). Therefore, principals do influence Institutionalization, but only through their influence on Organizational Change. This means that if a principal is a strong leader and has a responsive management style, the school attempting an improvement effort will undergo a large amount of change; and the more change there is, the more likely the new practice will be institutionalized.

Before concluding, let us quickly note some additional principal related findings displayed in the school-focused model which do not lead to the school-focused outcomes (i.e., Plans for Continuation, Organizational Change, and Institutionalization). The school-focused model includes Principal Help Received which was also in the individually-focused model. Here a positive effect ( $.05 < p < .10$ ) on Practice-Related Mastery leads to an individual outcome (benefits: gains versus losses). Principal Commitment to the practice has a positive significant ( $p < .05$ ) effect on Principal Help Received. This is interesting because Principal Commitment may be one of the few variables that positively influences both individually-focused and school-focused outcomes. You will also notice that Principal Management Style has a significant negative affect on Principal Help Received. If you remember Principal Help Received is composed of concrete practice specific activities. Principals who can concretely get involved with implementation (providing materials, training teachers) may be viewed as pushing the practice. These principals may be perceived as less responsive to teachers ideas and more directive, such a principal would receive a low score on Principal Management Style.

Overall, our analysis indicates that the principal is significant in bringing about both school-focused and individually-focused outcomes. For the most part the aspects of the principal which impact at the school and individual levels differ, with the exception of principal commitment. Individually-focused outcomes result from specific practice-related assistance by the principal. School-focused outcomes result from the more general management style and leadership of the principal.

Most of the literature and research on the principal's role in school improvement extolls its importance but sheds little light on the specific activities and behaviors that actually make a difference. We believe that, as a result of this Study, we have been able to peel off a layer of the onion. We have identified several important principal behaviors, and we know where impacts of these behaviors are felt. Although there's much more to be discovered, the principal's role in the improvement of practice has begun to be unraveled.

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